

# SQL SERVER Reporting Service CHEAT SHEET

## SSRS Basics

### SSRS

**SQL Server Reporting Service** is a feature included in the SQL server product. It is a **server-based reporting platform** used to create and manage a wide variety of reports and deliver them in a range of formats.

### Components of SSRS

- **Databases:** Reporting service uses two databases named **ReportServer** and **ReportServerTempDB** by default. The **ReportServer** database is used to store reports, data sources, snapshots etc. **ReportServerTempDB** is used for temporary storage, and these two services are automatically created while configuring reporting services.
- **Windows service:** The windows service is implemented as the core of Reporting services which provides the following functionalities
  - **HTTP listener** is a new feature implemented in the Reporting Services where internet information service (IIS) is not required
  - **Report Manager** is an **ASP.NET application** which provides a browser-based interface for managing the Reporting Services
  - The **web service** is also implemented as **ASP.NET application**, which provides a programmatic interface for managing the reporting services
  - **Background processing** is used to provide the core services for Reporting Services
  - The Report Manager, Web Services and Background Processing are implemented as separate application domains
- **Report Designer:** It provides the capability to design, develop, test and deploy reports. It is a developer-centric tool called **Business Intelligence Development Studio (BIDS)**.

### BI Development Studio

**BIDS** is a tool used to develop reports. It has some enhancements to the user-interface for designing, developing and testing reports included with SQL server.

### SQL Server Data Tools

**SSDT** is a Visual Studio based Microsoft application configured to use for MSBI line of products such as SSIS, SSRS and SSAS

### Report Def. Language

**RDL:** XML grammar  
**Report Definition Language for Client** is an XML file that corresponds to **(RDLC): RDLC** is produced by the Visual Studio report definition that is (.rdlc) files in XML format to be used with **ReportViewer** control

### Data Sources & Sets

**Data sources** holds the details of the database server

**Datasets** stores the specific query that is used to fetch the data for a particular report. There are two types of Datasets

- **Shared Datasets:** It is a dataset published on a remote server and can be used by multiple reports
- **Embedded datasets:** These datasets are defined in and used by a single report

### Architecture of SSRS

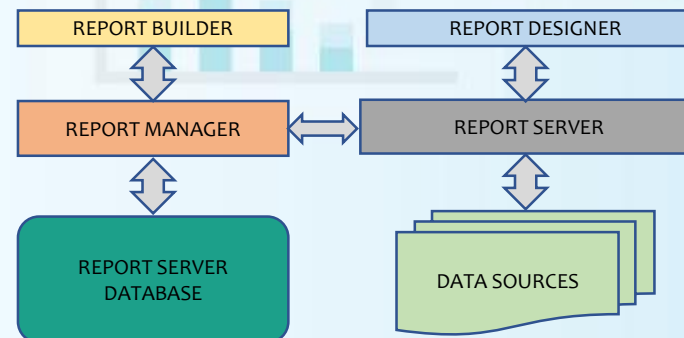
- **Report Builder:** It is a component used to drag and drop and provides easy use of Report Design functionality
- **Report Designer:** It is a publishing tool hosted in **Business Intelligence Development Studio (BIDS)** or visual studio which can be used to develop simple and complex reports.
- **Report Manager:** Web-based reports can be easily accessed using this tool. The default URL is <http://<server>/reports>
- **Report server:** It is a server used to store metadata in a SQL server database engine
- **Report Server Database:** It is a database which is used to store metadata, report definitions, resources, security settings, delivery data etc.
- **Data Sources** It is used by Reporting Services to retrieve data from relational or multi-dimensional data sources

| Statement                                 | Expressions  |
|---|--|
| Return first day of the current week      | =DateAdd("d",-DatePart(DateInterval.WeekDay,Today,0,0)+1,Today)  |
| Returns first day of the current month or | =DateAdd("d",-Day(today)-1, Today)<br>or<br>=DateSerial( year(today()), month(today()), 1)   |
| Return first day of current year          | =DateAdd("d",-DatePart(DateInterval.DayOfYear,Today,0,0)+1,Today)  |
| Last day of current month:                | =dateadd("m",1,dateserial(year(Today),month(Today),0))   |
| Last day of previous month:               | =dateadd("m",0,dateserial(year(Today),month(Today),0))   |
| Last day of next month:                   | =dateadd("m",2,dateserial(year(Today),month(Today),0))   |
| Return period over period                 | For week over week<br>=DateAdd("ww",-1, Today)<br>For month over month<br>=DateAdd("m",-1,Today)<br>For year over year<br>=DateAdd("yyyy",-1, Today) |

| Statement                          | Expressions  |
|------------------------------------|--|
| Return current month name          | =MonthName(Month(Today()))   |
| Uppercase fields                   | =UCASE(Fields!FieldName.Value)   |
| Convert text to proper case        | =StrConv(Fields!FieldName.Value, VbStrConv.ProperCase)   |
| To replace null with another value | =iif(Fields!FieldName.Value = nothing, "No Value",Fields! FieldName.Value)   |
| To alternate row color             | =iif((RowNumber(Nothing) Mod 2 = 0, "Silver", "White")   |
| Handling division by zero          | =iif(Fields!DenominatorField.Value = 0, 0, Fields!NumeratorField.Value/ iif(Fields!DenominatorField.Value = 0, 1, Fields! DenominatorField.Value)) |
| Security number                    | =Replace(Fields!EmailAddress.Value,"-","")   |

### Advantages of SSRS

- It provides direct and efficient reporting access for information residing in databases such as **Oracle** and **MS SQL Server**
- Faster production of reports on relational and cube data
- It is used to create an easy to deploy centralized reporting infrastructure based on Microsoft Reporting services
- It provides better decision support for faster delivery of information to the business
- It provides the ability for the business to self-serve, edit and interact with the information without relying on IT resources
- The entire report and the data source files are stored as an XML file which is used by the reporting engine to render the reports
- It contains a simple pricing model for both entry level and enterprise level installations allowing inexpensive provision of the BI tools
- XML based report definition allows to directly design the reports programmatically and render them
- The entire functionality is displayed as a single web service
- The role-based management for security is applied to folders as well as reports
- The reporting needs of the user can be managed by himself by accessing reports ad-hoc or by subscribing the reports
- The UI for the defined parameters is automatically generated



**FURTHERMORE:**  
**SSRS Certification Training Course**